

**WHAT IS CLAIMED IS:**

1. An apparatus for processing financial transactions, comprising:  
a memory operable to store information and a program, the memory further  
operable to store a first message indicating the making of a financial transaction, the  
5 first message including customer information and transaction information; and  
a processor coupled to the memory, the processor, according to the program,  
operable to:
- determine the validity of the customer information,  
generate a second message indicating non-authorization of the  
10 financial transaction if the customer information is invalid,  
determine whether the financial transaction involves a micro-payment  
if the customer information is valid,  
instruct the memory to store at least part of the transaction information  
and generate a third message indicating authorization of the financial transaction if the  
15 financial transaction involves a micro-payment, and  
generate an authorization request if the financial transaction does not  
involve a micro-payment.
2. The apparatus of Claim 1, further comprising a communication  
20 interface adapted to be coupled to a communication link and coupled to the memory,  
the communication interface operable to receive information from and send  
information over the communication link.
3. The apparatus of Claim 2, wherein the communication interface is a  
25 network interface card.
4. The apparatus of Claim 1, wherein:  
the customer information comprises a digital certificate; and  
the transaction information comprises the time of initiation of the financial  
30 transaction, the amount of the financial transaction, and a customer account identifier.

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5. The apparatus of Claim 4, wherein the customer account identifier represents a credit card account.

6. The apparatus of Claim 4, wherein the digital certificate complies with  
5 X.509.

7. The apparatus of Claim 1, wherein the memory comprises random access memory.

10 8. The apparatus of Claim 1, wherein the processor is further operable to determine whether the customer information is in an appropriate format and is associated with an account that is in good standing to determine the validity of the customer information.

15 9. The apparatus of Claim 1, wherein the processor is further operable to generate a validation request based on the customer information, receive a validation response indicating the validity of the customer information, and analyze the validation response to determine the validity of the customer information.

20 10. The apparatus of Claim 1, wherein the processor is further operable to determine whether the amount of the financial transaction is below a threshold to determine whether the financial transaction involves a micro-payment.

25 11. The apparatus of Claim 1, wherein the processor is further operable to instruct the memory to store the time of initiation of the financial transaction, the amount of the financial transaction, and a customer account identifier to instruct the memory to store at least part of the transaction information.

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30 12. The apparatus of Claim 1, wherein the processor is further operable to instruct the memory to store, in a buffer, at least part of the transaction information for each of a plurality of financial transactions that involves a micro-payment.

13. The apparatus of Claim 1, wherein the processor is further operable to generate a fourth message to settle the financial transaction based on the stored part of the transaction information.

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14. The apparatus of Claim 13, wherein the processor generates the fourth message at a designated time.

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15. The apparatus of Claim 1, wherein:  
the first message includes merchant information; and  
the processor is further operable to determine whether the merchant information is valid, generate the second message if the merchant information is invalid, and determine whether the financial transaction involves a micro-payment only if the merchant information is valid.

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16. The apparatus of Claim 15, wherein the merchant information comprises a digital certificate.

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17. The apparatus of Claim 15, wherein the processor is further operable to instruct the memory to store, in a buffer, at least part of the transaction information for each of a plurality of financial transactions that involves a micro-payment and is associated with the merchant information.

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18. The apparatus of Claim 17, wherein the processor is further operable to generate a fifth message to settle all of the financial transactions based on the part of the transaction information stored for each financial transaction in the buffer.

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19. A method for processing financial transactions, comprising:  
receiving a first message indicating the making of a financial transaction, the  
first message including customer information and transaction information;  
determining the validity of the customer information;  
5 generating a second message indicating non-authorization of the financial  
transaction if the customer information is invalid;  
determining whether the financial transaction involves a micro-payment if the  
customer information is valid;  
if the financial transaction involves a micro-payment:  
10 storing at least part of the transaction information, and  
generating a third message indicating authorization of the financial  
transaction; and  
if the financial transaction does not involve a micro-payment, generating an  
authorization request.

15 20. The method of Claim 19, wherein receiving a first message including  
transaction information comprises receiving the time of initiation of the financial  
transaction, the amount of the financial transaction, and a customer account identifier.

20 21. The method of Claim 20, wherein the customer account identifier  
represents a credit card account.

22. The method of Claim 19, wherein:  
the customer information comprises a digital certificate; and  
25 determining the validity of the customer information comprises determining  
the validity of the digital certificate.

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1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

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30. The method of Claim 29, wherein the merchant information comprises a digital certificate.

31. The method of Claim 29, further comprising storing, in a buffer, at least part of the transaction information for each of a plurality of financial transactions that involves a micro-payment and is associated with the merchant information.

32. The method of Claim 31, further comprising generating a fifth message  
10 to settle all of the financial transactions based on the part of the transaction  
information stored for each financial transaction in the buffer.

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99

33. A set of logic encoded in media for processing financial transactions, the logic operable to perform the following operations:

detect the reception of a first message indicating the making of a financial transaction, the first message including customer information and transaction  
5 information;

determine the validity of the customer information;

generate a second message indicating non-authorization of the financial transaction if the customer information is invalid;

determine whether the financial transaction involves a micro-payment if the  
10 customer information is valid;

if the financial transaction involves a micro-payment:

instruct a memory to store at least part of the transaction information,  
and

generate a third message indicating authorization of the financial  
15 transaction; and

if the financial transaction does not involve a micro-payment, generate an authorization request.

34. The logic of Claim 33, wherein the transaction information includes  
20 the time of initiation of the financial transaction, the amount of the financial transaction, and a customer account identifier.

35. The logic of Claim 34, wherein the customer account identifier represents a credit card account.  
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36. The logic of Claim 33, wherein:  
the customer information comprises a digital certificate; and  
the logic is further operable to determine the validity of the digital certificate  
to determine the validity of the customer information.  
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37. The logic of Claim 33, wherein the logic is further operable to generate a validation request based on the customer information, receive a validation response indicating the validity of the customer information, and analyze the validation response to determine the validity of the customer information.

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38. The logic of Claim 33, wherein the logic is further operable to determine whether the amount of the financial transaction is below a threshold to determine whether the financial transaction involves a micro-payment.

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39. The logic of Claim 33, wherein the logic is further operable to instruct the memory to store the time of initiation of the financial transaction, the amount of the financial transaction, and a customer account identifier to instruct a memory to store at least part of the transaction information.

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40. The logic of Claim 33, wherein the logic is further operable to instruct the memory to store at least part of the transaction information for each of a plurality of financial transactions that involves a micro-payment.

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41. The logic of Claim 33, wherein the logic is further operable to generate a fourth message to settle the financial transaction based on the stored part of the transaction information.

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42. The logic of Claim 41, wherein the logic is further operable to generate the fourth message at a designated time.

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43. The logic of Claim 33, wherein the first message includes merchant information, and the logic is further operable to:  
determine the validity of the merchant information;  
generate the second message if the merchant information is invalid; and  
determine whether the financial transaction involves a micro-payment only if the merchant information is valid.



44. The logic of Claim 43, wherein the merchant information comprises a digital certificate.

5 45. The logic of Claim 43, wherein the logic is further operable to instruct the memory to store, in a buffer, at least part of the transaction information for each of a plurality of financial transactions that involves a micro-payment and is associated with the merchant information.

10 46. The logic of Claim 45, wherein the logic is further operable to generate a fifth message to settle all of the financial transactions based on the part of the transaction information stored for each financial transaction in the buffer.

47. The logic of Claim 33, wherein the media is random access memory.



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48. An apparatus for processing financial transactions, comprising:  
a communication interface adapted to be coupled to a communication link, the communication interface operable to receive information from and send information over the communication link, the communication interface further operable to receive  
5 a first message indicating the making of a financial transaction, the first message including customer information, merchant information, and transaction information;  
a memory coupled to the communication interface, the memory operable to store information and a program;  
a processor coupled to the memory, the processor, according to the program,  
10 operable to:  
generate a validation request based on the customer information and the merchant information,  
receive a validation response indicating the validity of the customer information and the merchant information,  
15 generate a second message indicating non-authorization of the financial transaction if either the customer information or the merchant information is invalid,  
determine, if both the customer information and the merchant information are valid, whether the financial transaction involves a micro-payment by analyzing whether the amount of the financial transaction is below a threshold,  
20 if the financial transaction involves a micro-payment, instruct the memory to store at least part of the transaction information in a buffer and generate a third message indicating authorization of the financial transaction,  
if the financial transaction does not involve a micro-payment, generate  
25 an authorization request, receive an authorization response, and generate a fourth message indicating the authorization status of the financial transaction, and  
generate a fifth message to settle the financial transaction based on the part of the transaction information stored in the buffer.

30 49. The apparatus of Claim 48, wherein the communication interface is a network interface card.

50. The apparatus of Claim 48, wherein:  
the customer information comprises a digital certificate;  
the merchant information comprises a digital certificate; and  
5 the transaction information comprises the time of initiation of the financial  
transaction, the amount of the financial transaction, and a customer account identifier.

51. The apparatus of Claim 48, wherein the memory comprises random  
access memory.

52. The apparatus of Claim 48, wherein the processor is further operable to  
instruct the memory to store the time of initiation of the financial transaction, the  
amount of the financial transaction, and a customer account identifier in the buffer to  
instruct the memory to store at least part of the transaction information in a buffer.

53. The apparatus of Claim 48, wherein the processor is further operable to  
instruct the memory to store at least part of the transaction information for each of a  
plurality of financial transactions that involves a micro-payment in the buffer.

54. The apparatus of Claim 48, wherein the processor generates the fifth  
message at a designated time.

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